

# Into the Patent Thicket

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# Overview

- ❖ CAFC creation represented a profound change in U.S. patent system.
- ❖ Increasing filing and litigation of patents have been consequences.
- ❖ Numerous reasons for concern about impact on innovation and competition.



# The backdrop

- ❖ Intense competition between firms in high-technology industries:
  - 🕷 Technology races with substantial first mover advantages.
  - 🕷 Ability of venture capitalists to choose between dozens of competing proposals.
  - 🕷 Critical importance of clear title to intellectual property in process.
    - \* Reinganum [1989]; Lerner [1997]; Gompers and Lerner [1999].



# The shift

## ✧ Creation of Court of Appeals for the Federal Circuit:

- 🕸 Centralized appellate court created in 1982.

- 🕸 Presented at time as benign change to address “forum shopping” by litigants.

  - ★ Merges [1992].



# The shift (2)

- ❖ Shift to a more “pro-patent” stance:
  - 🕷 62% of infringement findings upheld in previous 30 years.
  - 🕷 90% in first 8 years of CAFC.
    - ★ Koenig [1980]; Harmon [1991].
- ❖ Important doctrinal shifts in a number of areas.



# Consequences

❖ Greater willingness to file for and litigate awards:

🕷 Doubling in patent filings by U.S. corporations between 1988 and 2000:

- \* Somewhat reflects pace of technical change.

🕷 >3X increase in patent litigation, 1981-2000:

- \* Estimate that roughly 25% of basic research spending.

🕷 Increase in internal resource to patent activities.

- \* Kortum and Lerner [1998]; Lerner [1995]; various government publications.



# A shifting competitive environment

❖ Growth of litigation between new and established firms:

- 🕷 Established firms have sought to license portfolios of long-issued patents.
- 🕷 May lead in some cases to substantial transfers from newest (and far more innovative) firms.
- 🕷 May affect newer firms' choices when deciding which innovations to pursue.
  - \* Hall and Ziedonis [2001]; Lanjouw and Lerner [2001]; Lerner [1995]



# A shifting competitive environment (2)

- ✦ Growth of individual inventors who seek to “hold up” established players:
  - 🕷 Unilateral nature of threat (e.g., preliminary injunctions).
  - 🕷 Uncertainty of litigation.
  - 🕷 Often settlement is the preferred response.



# Particularly severe in emerging industries

- ❖ Lack of experienced examiners.
- ❖ Difficulties in retaining examiners.
- ❖ Particular challenges when substantial non-patent prior art:
  - 🕷 Example of financial patents.
    - ★ Lerner [2002].





US005884286A

# United States Patent [19] Daughtery, III

[11] Patent Number: 5,884,286  
[45] Date of Patent: Mar. 16, 1999

[54] APPARATUS AND PROCESS FOR EXECUTING AN EXPIRATIONLESS OPTION TRANSACTION  
[76] Inventor: Vergil L. Daughtery, III, 203 Forside Cir., Americus, Ga. 31709-3337

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5,774,878 6/1998 Marshall ..... 705/35  
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[21] Appl. No.: 718,630  
[22] Filed: Sep. 17, 1996

## Related U.S. Application Data

[63] Continuation-in-part of Ser. No. 282,717, Jul. 29, 1994, Pat. No. 5,557,517.  
[51] Int. Cl.<sup>6</sup> ..... G06F 17/60  
[52] U.S. Cl. .... 705/36; 705/1; 705/4; 705/35; 705/37; 273/138.2; 364/918  
[58] Field of Search ..... 705/1, 36, 37, 705/4, 35; 273/138.2; 364/918

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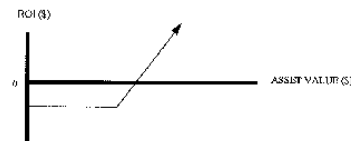
Primary Examiner: Allen R. MacDonald  
Assistant Examiner: M. Ishaqullah  
Attorney, Agent, or Firm: Troutman Sanders, LLP

## ABSTRACT

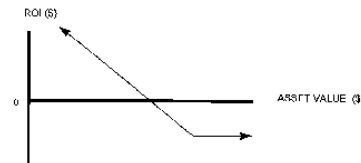
The present invention introduces an apparatus and process which may be implemented on a vast variety of computer systems. The apparatus and process of the present invention use a computer system to receive and store data representative of a particular asset, a type of option (call or put), requested exercise price and a multitude of other variables related to the asset. The apparatus and process then generate data representative of an expirationless option premium for use in transacting an expirationless option.

## 17 Claims, 12 Drawing Sheets

PURCHASED EXPIRATIONLESS CALL OPTION



PURCHASED EXPIRATIONLESS PUT OPTION



# Illustration: Daughtery patent

## ❖ “Apparatus and process for executing an expirationless option transaction”:

- ★ “The common denominator among the variety of prior art systems for transacting asset-based options are that they are only capable of transacting options which expire after a certain period of time.”
- ★ Only three academic citations.
  - Does not cite Samuelson [1965] and Merton and Samuelson [1969].
  - Does cite Merton [1973], but misrepresents!
- ★ Now attempting to license.



# Difficulties of shifting policy

- ❖ System is very resistant to change:
  - 🕷 Many reform efforts have been resisted over many decades.
  - 🕷 “Independent inventor” lobby has been most active, even though current system arguable causes them most difficulties!
  - 🕷 Limited input by economists in recent debates.



# Key barriers to change

- ✧ Complexity of issues involved.
- ✧ Failure of lawyers and economists to promote dialog on these issues.
- ✧ Presence of differing incentives:
  - 🕷 Small, well-connected group benefit from complex, litigious system.
  - 🕷 Much more diverse group harmed:
    - ★ On average each hurt to a lesser extent.
- ✧ Patent quality a key first step.

